

No. 662,620.

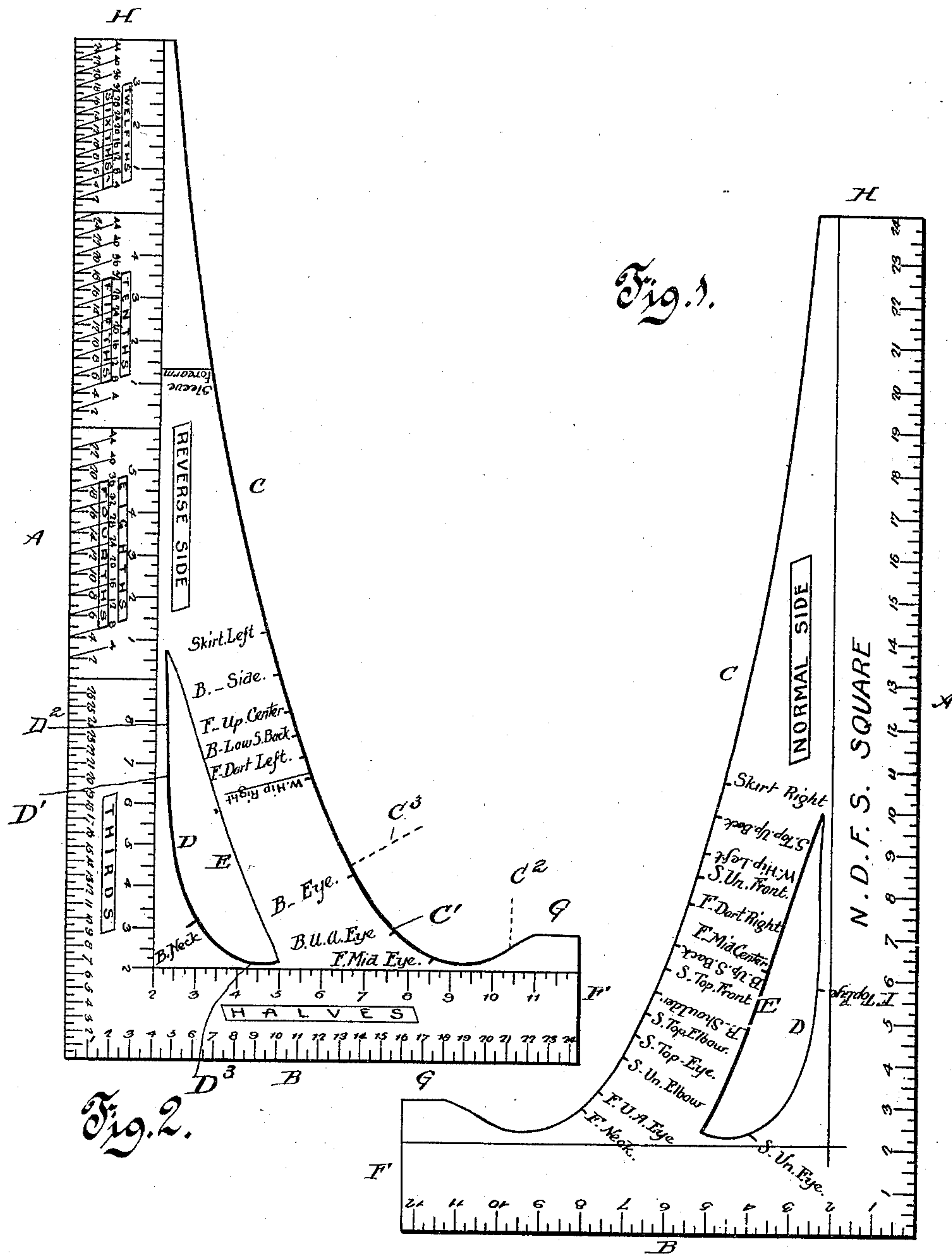
Patented Nov. 27, 1900.

V. H. GOFF.
DRESS CUTTING MEASURE.

(Application filed Nov. 5, 1898.)

(No Model.)

2 Sheets—Sheet 1.



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2 Sheets—Sheet 2.

Fig. 5.

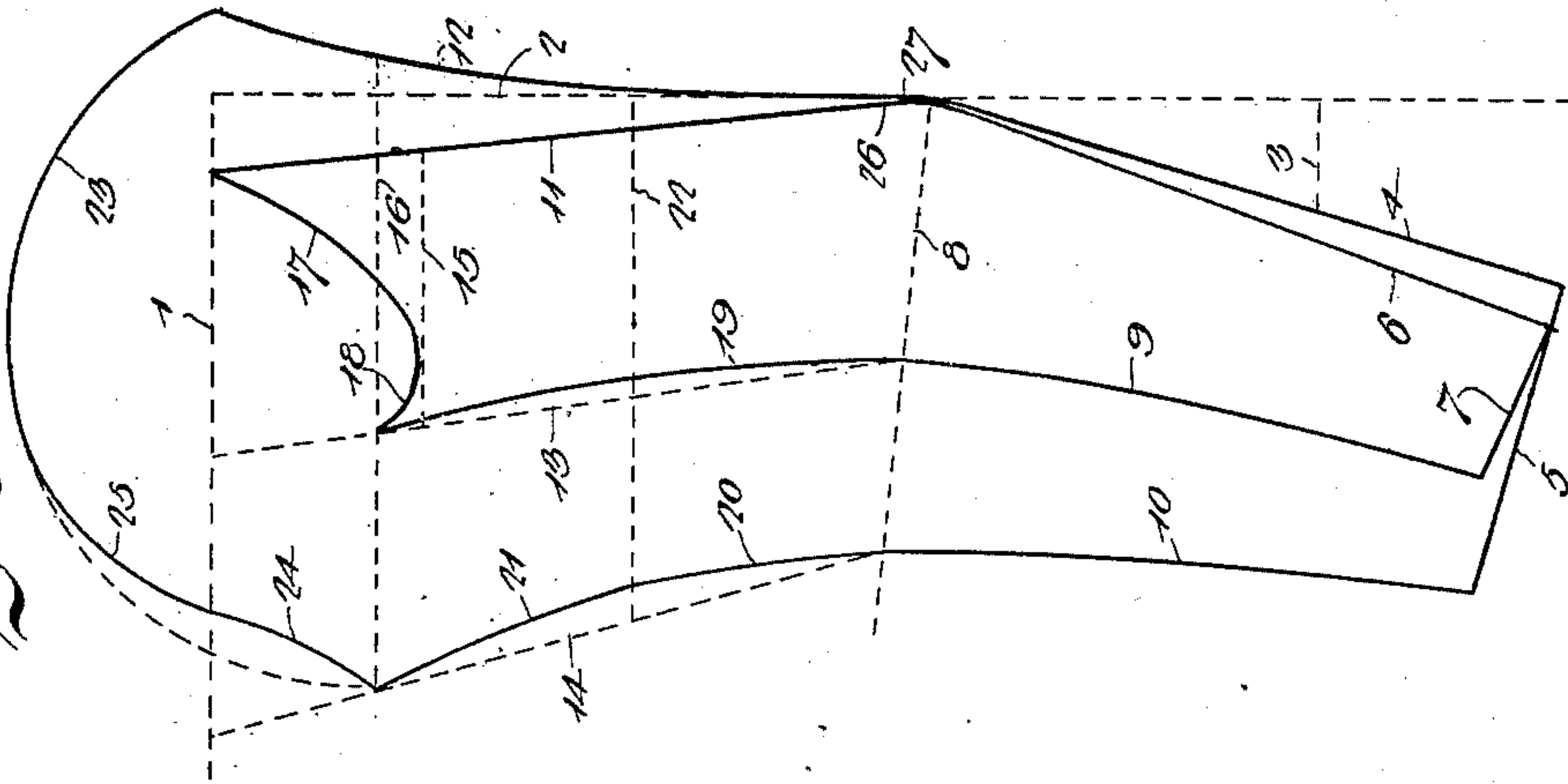


Fig. 4.

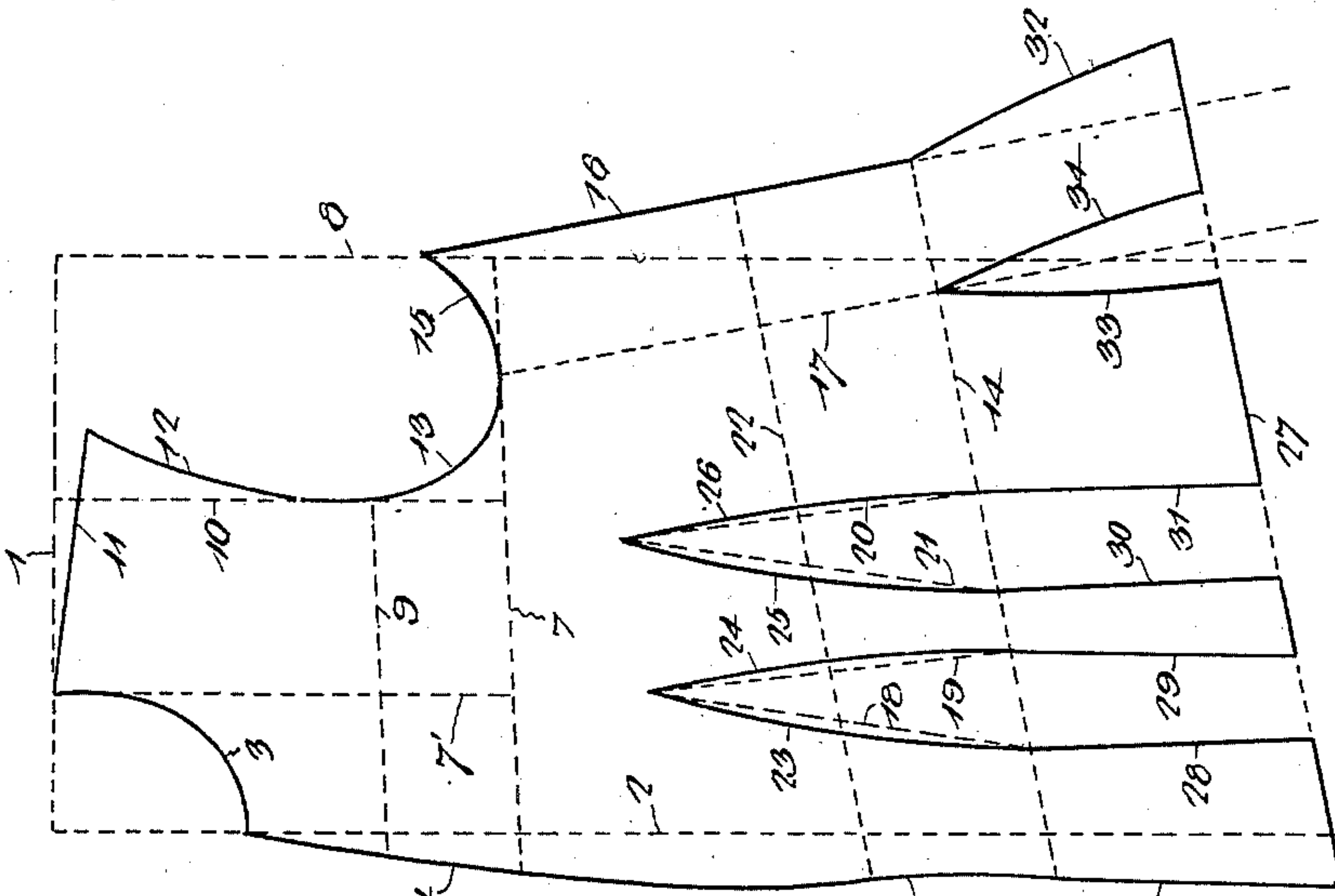
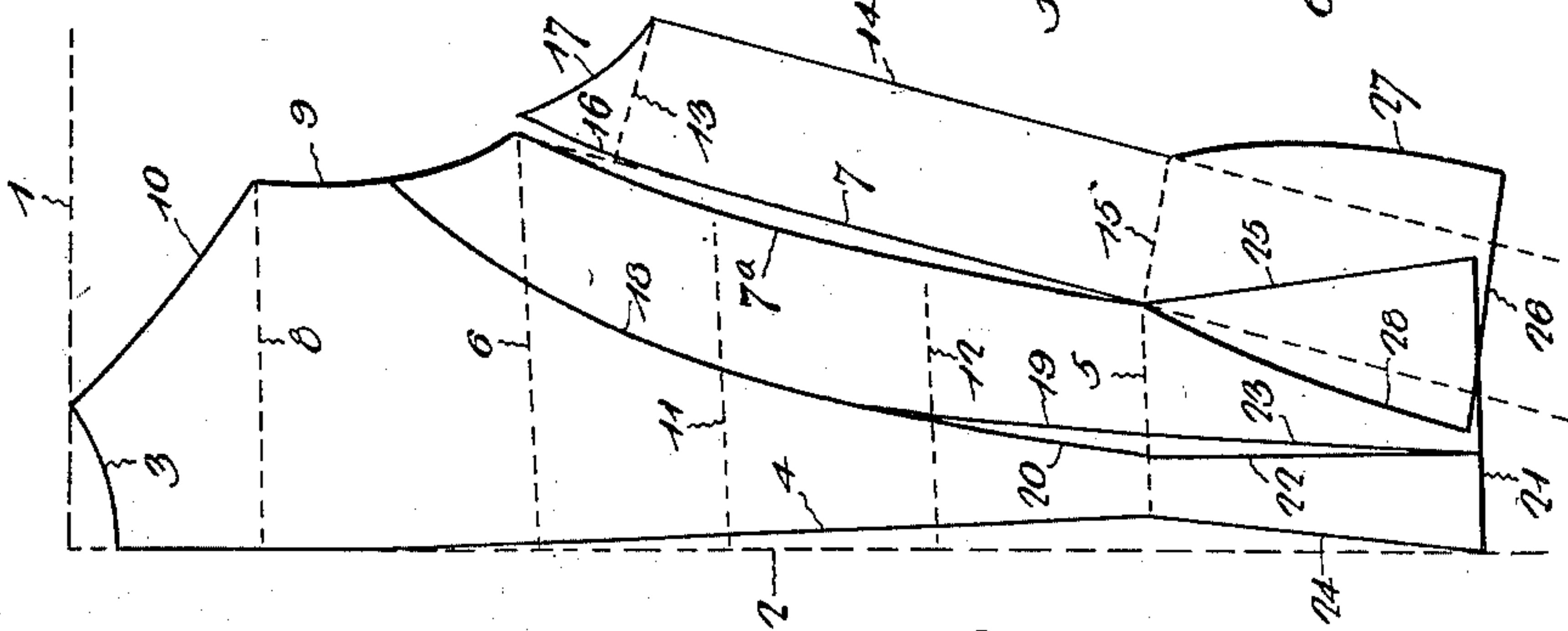


Fig. 3.



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UNITED STATES PATENT OFFICE.

VINA HILDEBRAND GOFF, OF EL DORADO SPRINGS, MISSOURI.

DRESS-CUTTING MEASURE.

SPECIFICATION forming part of Letters Patent No. 662,620, dated November 27, 1900.

Application filed November 5, 1898. Serial No. 695,640. (No model.)

To all whom it may concern:

Be it known that I, VINA HILDEBRAND GOFF, a citizen of the United States, residing at El Dorado Springs, in the county of Cedar and State of Missouri, have invented new and useful Improvements in Measures for Cutting Dresses, of which the following is a full description.

This invention relates to a measure for forming the curves and other lines in a draft or pattern for a dress, waist, or other lining and which can also be used in cutting skirts and other garments or articles; and the object of the same is to provide a simple and effective device for the purpose set forth, combining a series of curves, straight edges, and scales to afford accurate means of quickly arriving at the desired result.

My invention consists in certain novel constructions and combinations of parts, as will be hereinafter described, and pointed out in the claim.

In the drawings, Figure 1 is a top plan view of the improved measure scale or square. Fig. 2 is a similar view of the same device looking toward the opposite side. Fig. 3 is a diagrammatic view of the back of a waist. Fig. 4 is a similar view of a waist-front. Fig. 5 is a similar view of a sleeve.

Similar characters of reference are employed to indicate corresponding parts.

A, B, C, D, E, F, G, and H, Figs. 1 and 2, designate the edges of the measure, the latter being made of pasteboard, wood, sheet metal, or other suitable material. The edges A and B are straight and disposed at right angles to each other.

The inner edge C of the measure is of elongated curved form for use in making the various curves in garments and merging into a short curve having a different arc and located adjacent the terminal of the right-angular shorter member of the device. An opening is also formed in the measure in part near the angle of intersection of the two members having the outer straight edges, one edge D of said opening being substantially parallel with the outer edge of the long member of the device and continuing into gradual curve, terminating in an abrupt arc having a less radius than said latter curve. The opposite edge E of said opening is formed of a com-

pound curve whose maximum variations from a straight line drawn through its ends do not exceed one-eighth of an inch in either side. The edge F is formed by a straight line placed at right angles to the edge B, and the edge G is also formed by a straight line placed at right angles to the edge F and parallel with the edge B. The edge H is formed by a straight line placed at right angles to the edge A, and the said edges A, B, C, D, E, F, G, and H occupy portions of the device relative to each other, as shown in the accompanying drawings.

The side of the measure shown in Fig. 1 and marked "Normal Side" has scales of actual inches and their parts laid off along the edges A and B, the purpose of which is to lay off straight lines in the draft or pattern whose dimensions are determined by exact measures taken or by some formula, rule, or proportion demanding the laying off of a line whose dimensions are actual inches or parts thereof and also for the location of points at distances from other points corresponding to actual measures taken therefor or at distances from the points determined by some formula, rule, or proportion as for lines above.

The side of the measure shown in Fig. 2 and marked "Reverse Side" has scales of fractional inches and their parts laid off along the edges A and B, the purpose of which is to lay off straight lines in the draft or pattern whose dimensions are fractional or actual measures taken or determined by some formula, rule, or proportion as fractions of measures or dimensions used otherwise in the draft or pattern and also for locating points at distances from other points in the draft or pattern in the same manner as they are used for laying off lines. The order of the arrangement of the fractional scales is as represented in Fig. 2, the scale of halves extending from the corner along the edge B, the scale of thirds extending from the corner along a portion of the edge A, the scale of fourths, with the scale of eighths arranged diagonally above it, extending along the edge A next to the scale of thirds, and in like manner the scale of fifths and tenths and sixths and twelfths are arranged next in the order named, this order being found by ex-

periment to best facilitate the making of a draft with the measure described.

Along lines parallel to edges A and B opposite each scale of fractional inches on the reverse side of the measure, as shown in Fig. 2, is laid off a scale of actual inches corresponding in space occupied and in the direction of its numeration to the extent and direction of the fractional scale opposite, except in the case of those scales of actual inches placed nearest the corner of the measure, which vary from the above in that for obvious reasons they begin in extent and numeration at the end of the second inch. The purpose of this apposition of scales is to make the measure self-computing, as a line placed anywhere, with the above exception, at the corner, across the scales at right angles with the edges A or B will fall upon each figure or mark in the scale of actual inches as will be mathematically formed by taking the scale fractions of the number of marks opposite.

Along the curved edges C, D, and E on both the normal and reverse side of the measure, in juxtaposition to marked points, are words and abbreviations of words which are usually applied to name curved lines in drafts or patterns of dresses. All words preceded by "B" refer to lines formed in a draft or pattern of the back of a waist, all words preceded by "F" refer to lines formed in a draft or pattern of a front of a waist, all words preceded by "S" refer to lines formed in the draft or measure of a sleeve, while "W," preceding a word, stands for waist and refers to lines formed both in the front and back of waist drafts or patterns. In use when a curved line is to be drawn between two points the name of that line is found on the edges C, D, or E of either the normal or reverse side of the measure and the measure so placed that the letters in the name occupy an upright position with respect to the draft or point to the left, and the mark opposite the name occupies a central or nearly a central position between the two points in question, while said points touch the edge of the measure. The line is then drawn from one point to the other along the edge of the measure. It will further be obvious that the curved edges C, D, and E may be used for drafting lines of any pattern, garment, or article whose names are not found on said edges, but whose curves correspond to any curves found on said edges or any part thereof.

Fig. 3 shows the draft or pattern of the back of a waist made from proper measures taken therefor by use of the measure heretofore described. Lines 1 and 2 are first drawn at right angles to each other along edges A and B of the normal side of the pattern. A point is located on 1 at one-half the back-neck measure from corner and another at 2 on one-eighth the same measure from the corner. Line 3 is drawn along edge D of reverse side of the measure between said points at curve marked "B-Neck." Points are located on

line 2 at the shoulder below measure from the end of 3, at bust below measure from the end of 3, and at waist-length measure from the end of 3. From a point half-way between shoulder and the bust-points on 2 line 4 is drawn along edge A of the measure, diverging from line 2 at an angle measured by one-third inch at a distance of six inches from its starting-point to a point opposite the waist-point on 2. From the last point 5 is drawn at right angles to 2 along the edge B of reverse side of measure to mark indicating side-waist measure, plus the amount designed for side-back cut. Line 6 is drawn along same edge of the measure from a point on 4 opposite the bust-point on 2 to mark indicating back-bust measure. Line 7 is drawn from the end of 6 through the end of 5 along edge A of normal side of measure and extended at least five inches below 5. Line 8 is drawn from shoulder-point on 2 at right angles to 2 along edge B of reverse side of the measure to mark indicating lateral shoulder measure. Line 10 is drawn between the ends of 3 and 8 along edge C of normal side of measure at curve marked "B-Shoulder." Line 9 is drawn between the side of 10 and 6 along edge C of reverse side of measure at curve marked "B-Eye." A point is then located on 4 at bust above measure from 5, and line 11 is drawn along edge B of reverse side of measure to mark indicating back-bust measure. A point is located on 4 half-way between lines 11 and 5 and line 12 drawn along last-named edge of measure to mark indicating middle-bust measure, plus one-half the side-back cut allowed in line 5. Line 7^a is drawn from the right end of 6 through the ends of 11 and 12 to the end of 5 along edge C of reverse side of the measure at curve marked "B-Side." A point is next located on line 7^a at apex measure below line 6, and line 13 is drawn at right angles to 7^a along edge B of normal side of measure to lateral under-arm measure. A point is then located at the back under-arm-length measure below the right end of 13 and at back under-arm waist measure to the right of the end of 5, and a line 14 is drawn along edges A or B of normal side of measure from the end of 13 to this point, extending at least five inches below it. Line 15 is then drawn along the same edge of measure from the end of 5 to same point as above, and a point is located one-fourth inch to the right of the right end of 6, and line 16 is drawn from this point to a point in 7^a opposite the end of line 11 along edge C of reverse side of measure at curve marked "B-Side." Line 7^a is then drawn between the ends of 16 and 13 along edge C of reverse side of measure at curve marked "B. U. A. Eye." A point is next located at will on 9 and another in the same manner at 11, and line 18 is drawn between these two points along edge C of normal side of measure at curve marked "B-Up, S-Back." A point is then located at will on 5, and line 19 is drawn between the

end of 18 and this point along edge C of reverse side of measure at curve marked "B-Low, S-Back." Another point is located on 5 at a distance to the left of 19 equal to the side-back cut allowed in drawing line 5, and line 20 is drawn between the end of 18 and this point along the same edge of the measure and at the same curve as was used in drawing 19, and a point is next located on 2 five inches below the waist-point, and line 21 is drawn at right angles to 2 through this point, extending beyond line 14 along edges A or B of measure. Line 22 is next drawn between A or B of the measure at right angles to 5, and line 23 is drawn between the end of 19 and the same point along edges A or B of measure. A point is then located on 21 at back-hip measure to the left of the end of 22, and line 24 is drawn between the end of 4 and this point along edges A or B of measure, and another point is located on 21 at side-hip measure to the right of the end of 23, and line 25 is drawn along edges A or B of measure from the end of 7 to this point. A point is located on 7 at five inches below the end of 15. Line 26 is drawn through this point at right angles to 7 along edge A or B of measure extending on each side of lines 7 and 14, and a point is next located on line 26 to the right of 14 at a distance from it equal to two-thirds the excess of the under-arm hip measure over the length of line 26 between 14 and 7, and line 27 is drawn from the right end of 15 along edge C of reverse side of measure at curve marked "W-Hips-Right." A point is located on 26 at under-arm hip-measure to the left of 27, and line 28 is drawn between the left end of 15 and this point along edge C of normal side of measure at curve marked "W-Hips-Left," and the back is thus completed and will of course serve for the other half.

In the front of a waist, Fig. 4, lines 1 and 2 are drawn along edges A and B of normal side of measure at right angles to each other, and a point is located on 1 at one-sixth the whole neck measure to right of the corner, and another point is located on 2 at one-fourth the whole neck measure below the corner. Line 3 is then drawn between these points along edges C of normal side measure at curve marked "F-Neck." A point is located on 2 at bust below measure from the end 3, another on the same line at waist-length measure below the end 3, and another on 2 at five inches below the last point located. Opposite and to the left of bust-point on 2 a point is located at curve-depth measure from line 2, and line 4 is drawn from the end of 3 to this point along edge C of the reverse side of measure at curve marked "F-Up-Center." A point is then located to the left of waist-point on line 2 at waist-curve-depth measure from line 2, and line 5 is drawn between the end of 4 and this point along edge E of normal side of measure at curve marked "F-Mid. Center," and a point is next located on 2 at hip-curve-

depth measure from it, and line 6 is drawn from the end of 5 to this point along edges A or B of measure. Line 7 is drawn from the right end of 3 at right angles to 1 along edge A of normal side of measure to eye-depth measure, and line 7 is then drawn at right angles to 2 from line 4 through the end of 7 along edge B of reverse side of measure to mark indicating front bust measure. Line 8 is drawn at right angles to 1 along edge A of reverse side of measure through the end of 7, extending below it to about the length of line 2, and a point is then located on 2 half-way between the end of 3 and line 7, and line 9 is drawn at right angles to 2 along edge B of reverse side of measure to mark indicating front chest measure. Line 10 is drawn at right angles to 1 through the end of 9 along edges A or B of measure between lines 1 and 7, and a line 11 is drawn from the upper end of 3 at shoulder-angle divergence from line 1 along edge B of normal side of measure to shoulder-length measure. Line 12 is next run from the end of line 11 to the end of 9 and along edge D of normal side of measure at curve marked "F-Top-Eye." A point is located on 7 half-way between lines 10 and 8, and line 13 is drawn from the end of 12 to this point along edge C to reverse side of measure at curve marked "F-Mid. Eye." A point is located at the front under-arm-length measure below the lower end of line 13, and line 14 is drawn along edges A or B of measure from waist-point at the juncture of 5 and 6 through the point last located, the line being extended indefinitely beyond line 8. A point is then located on line 14 at dart-waist location measure from end of line 5, another one, same line, at dart-width measure from the first, another at one inch from second, and a fourth at dart-width measure from the third. A point is then located on 8 at a distance above 7 equal to one-half of the dart-width measure, and line 15 is drawn from the end of 13 to this point along edge C of normal side of measure at curve marked "F. U. A. Eye." A point is located on 14 by means of edge B of reverse side of measure at the mark exclusive of dart-sections, indicating front waist measure, and line 16 is drawn from the right end of 15 through this point along edges A or B of measure, extending at least five inches below it, and line 17 is drawn from the junction of lines 13 and 15 parallel to 16 along edges A or B of measure, and extending at least five inches below 14. A point is located at dart-height measure above the first dart-point on line 14 and at a distance to the right of line 4 equal to dart-top location measure, and lines 18 and 19 are then drawn from this point to the first and second dart-points on 14 along edges A or B of measure. A point is located at a desired distance to the right of the point at the top of first dart and in a line one-half inch above it, and from this point lines 20 and 21 are drawn to the fourth and third dart-points on 14, respectively,

along edges A or B of measure. A point is located at the center of line 18, and line 22 is drawn parallel to line 14 from line 5 to line 16 along edges A or B of measure. By means of edge B of reverse side of measure the length of line 22, exclusive of distance inclosed by 18 and 19 and 21 and 20, is found and compared with the front middle-bust measure. Points are located by means of the same edge of measure on line 22 outside of lines 18 and 19 and 21 and 20 at a mark in each case indicating one-fourth the excess of the parts of 22 as compared over the middle bust measure, and lines 23 and 25 are drawn between the top of the first and second darts to the first and third dart-points, respectively, on line 14, along edge C of reverse side of measure at curve marked "F-Dart, Left." Lines 24 and 26 are then drawn from the tops of the first and second darts to the third and fourth dart-points, respectively, along edge C of normal side of measure at curve marked "F-Dart, Right," and line 27 is drawn from the lower end of line 6 parallel to line 14, along edges A or B of measure, extending indefinitely beyond line 16. A point is located on 27 at hip-dart location measure to the right of 6, and line 28 is drawn along edges A or B of measure from the end of 28 to this point. A point is next located to the right of lines 28 on 27, at a distance from 28 equal to two-thirds the dart-width measure, and line 29 is drawn from the end of 24 to this latter point in the same manner as 28 was drawn. A point is located on 27 to the right of 29 one and one-fourth inches (or any desired distance) from it, and line 30 is drawn between the end of 25 and this point also in the same manner as 28 was drawn, and a point is then located on 27 at dart-width measure to the right of line 30, and line 31 is drawn between the end of 26 and this point in the same manner as 28 was drawn. A point is located on 27 at a distance to the right of 16 equal to the distance between lines 14 and 27 on line 26 in back draft, and line 32 is drawn from the junction of 14 and 16 to this point along edge C of reverse side of measure at curve marked "W-Hips, Right." A point is next located on 27 at a distance to the left of 17 equal to one-half the distance between lines 16 and 32 on 27, and line 33 is drawn between the junction of 17 and 14 and this point along edge C of normal side of measure at the curve marked "W-Hips, Left."

By means of edge B, reverse side of the measure, the length of line 27 between lines 6 and 32, exclusive of dart-sections, is formed and compared with the front hip measure. A point is located on 27 at a distance to the right of 33 equal to the excess of the hip measure over the parts compared with it, and line 34 is drawn from the junction of 17 and 14 to this point along edge C of reverse side of measure at curve marked "W-Hips, Right," and the waist-front is completed according to desired measure.

In the view of the sleeve draft, Fig. 5, lines 1 and 2 are drawn at right angles to each other along edges A and B of reverse side of measure, and a point is located on 2 at elbow-length measure from the corner and another on the same line six inches below the last point, and line 3 is drawn from the second point on 2 at right angles with 2 along edge A of normal side of measure one and three-fourths inches long. Line 4 is next drawn from elbow-point through the end of 3 along edge A of normal side of measure to forearm-length measure. The corner of normal side of measure is next placed on the end of 4, diverging from it at an angle measured by one-third inch at six inches from the corner, and a line 5 then drawn to indefinite length along edge A of measure. A point is next located on 5 at a distance from the end of 4 equal to the distance between edge B of measure and elbow-point at the time line 5 was being drawn, and a line 6 is drawn from the elbow-point to this point along edge C of reverse side of measure at curve marked "Sleeve Forearm," and line 7 is drawn at right angles to line 6 along edge A of reverse side of measure at the scale of thirds to mark indicating hand or waist measure. A point is next located on 5 at a distance from 4 equal to the excess of the hand or waist measure over the length of line 7, and another point is also located at the center of line 3, and the measure is then placed with the corner of the normal side on elbow-point, and edge B passing through the point on 3, and line 8 is drawn along edge A of the pattern in this position to an indefinite dimension. A point is located on 8 by means of the scale of thirds, reverse side of measure, at the mark indicating elbow measure from elbow-point, plus one inch of scale added, and line 9 is drawn from this point to the left end of line 7 along edge C of reverse side of measure at curve marked "Sleeve Forearm." A point is then located on 8 at a distance from elbow-point equal to the excess of the elbow measure over that part of 8 between line 9 and elbow-point, and line 10 is drawn from this point to the point formerly located on 5 along edge C of reverse side of measure at curve marked "Sleeve Forearm," and line 11 is next drawn from elbow-point along edge A of normal side of measure at an angle of divergence from 2 measured by one-half inch at six inches from elbow-point. The elbow and arm-size measure are compared and a point located at the right of the end of 11 at a distance from it equal to one-half the excess of the arm-size measure over the elbow measure, and line 12 is drawn from this point to elbow-point along edge C of normal side of measure at curve marked "S-Top, Up-Back." A point is then located on 1 at one-fourth arms-size measure to the left of line 11, and line 13 is drawn from this point to the end of line 9 along edges A or B of measure, and another point is located on 1 at two-thirds the arm-size measure from the upper end of 12,

and line 14 is drawn from this point to the end of line 10 along edges A or B of measure. A point is located on line 13 at the under-length measure from line 7, and line 15 is drawn between lines 11 and 13 parallel to 1 along edges A or B of measure. A point is located on 13 at a distance from 15 equal to one-fifth the length of that part of 13 between 15 and 1, and line 16 is drawn from 14 to 12 through this point parallel to 1 along edges A or B of measure. A point is located on 15 at one-fourth its length to the right of 14, and line 17 is drawn from this point to the end of 11 along edge D of measure, with the point marked "S-Un. Eye" at point on 15, and line 18 is then drawn between the junction of 13 and 16 and the same point along the left section of the same curve on the same edge of measure at curve marked "S-Un. Front." A point is located at the center of line 19, and line 22 is drawn between line 14 and 12 parallel to line 16 along edges A or B of measure. The whole length of line 22, plus the length of that part of it between lines 19 and 11, is then compared with the length of the upper-arm girth measure, and a point is located to the right of line 14 on 22 at a distance from 14 equal to the excess of the parts compared over the upper-arm measure, and line 20 is drawn from said point to the upper end of 10 along edge C of normal side of measure at curve marked "S-Top-Front," and a line 21 is drawn between the upper end of 20 and the junction of 14 and 16 along the same edge of measure and at the same curve as was used in drawing 20. Line 23 is drawn with compass or line and pencil or similar means from the end of 21 to the end of 12, using a point in line 16 that will serve as a center. A point is located on 1 at a distance to the right of 23 equal to the distance between lines 15 and 16, and line 24 is drawn between the junction of 14 and 23 and the last point located along edge C of normal side of measure at curve marked "S-Top-Eye." Line 25 is drawn with compass or by using similar means from the end of 24 to the top of 23, using a point in line 16 that will serve as a center. Line 26 is drawn from a point in line 11 located one and one-half inches above the elbow-point to a point located one and one-half inches below the elbow-point in line 6 along edge C of normal side of measure at curve marked "S-Un. Elbow," and line 27 is drawn from points similarly located in lines 12 and 4 along the same edge of the same side of measure at curve marked "S-Top-Elbow," when sleeve-section will be complete.

The use of the measure in drafting the lines

of the back, front, and sleeve of a waist, using points geometrically located according to certain methods and proportions between which to draw said lines, has been described; but it is obvious that the measure will also be useful in drawing the lines of a draft or measure of a waist between points located according to different proportions or by other methods. It is also obvious that other proportions or methods are liable to demand the ascertaining of fractional relations between lines, measures, or distances employed other than those used in the drafts of the parts of the waist above described and which is liable to be true also of the proportions of any garment other than the above-described waist, and hence the usefulness will readily be seen of each and every fractional scale placed upon the measure described.

Changes in the form, proportions, and minor details of construction can be resorted to without in the least departing from the principle or sacrificing any of the advantages of the invention.

Having thus described the invention, what is claimed as new is—

As an improved article of manufacture, a measure for use in delineating or defining waist or dress outlines, consisting of a body having two edges arranged at right angles to each other, the shorter edge having whole and half scale marks on opposite sides, and the longer edge provided with full-inch scale-marks on one side and fractional-inch scale-marks on the opposite side corresponding in space occupied and direction of numeration to the extent and direction of the full-inch scale-marks on the opposite side except those scales of actual inches located nearest the corner of the measure to make the measure self-computing, the said edges being connected at their inner portions by a member having an inner elongated curved edge for use in making the various curves in garments and merging into a short curve having a different arc, the said curved edge as an entirety having marked points and abbreviated words in juxtaposition thereto and designating-letters referring to the front and back of the waist, and a sleeve, an opening being formed through the body of the measure adjacent the intersecting angle of the two straight edges, the opposite walls of said opening being curved and divided by indicating-marks to define the curves of different parts of garments.

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